

Claims:

What is claimed is:

1. An electrical connector, comprising:
  - a first electrically conducting plate; and
  - a second electrically conducting plate positioned opposite and oriented substantially in parallel with the first electrically conducting plate;
  - a first and second plurality of substantially parallel elongated electrically conducting fingers formed in the respective first and second electrically conducting plates; and
  - wherein each finger may be independently bent.
2. The connector of claim 1 wherein each finger in the first electrically conducting plate is positioned substantially opposite a finger in the second electrically conducting plate.
3. The connector of claim 1 wherein each substantially planar electrically conducting plate is electrically connectable to a ground potential.
4. The connector of claim 3 wherein each substantially planar electrically conducting plate is electrically connected to a ground potential

5. The connector of claim 1 further comprising a plurality of electrically conducting contact receptors positioned between and spaced from the first and second substantially planar electrically conducting plates; wherein each respective electrically conducting contact receptor is positioned between two oppositely disposed fingers; and wherein a finger bent towards the opposite electrically conducting plate makes electrical contact with a respective electrically conducting contact receptor and grounds the respective electrically conducting plate connected thereto.

6. The connector of claim 1 further comprising at least one electrical contact positioned adjacent and spaced from a respective finger, wherein substantially bending the finger towards the at least one electrical contact makes electrically connects the electrical contact with a ground potential.

7. The connector of claim 1 wherein the fingers are adapted to be selectively bent inwardly towards the opposite electrically conducting plate.

8. The connector of claim 1 wherein at least some of the fingers are selectively bent inwardly towards the oppositely positioned electrically conducting plate to produce a customized pattern of grounded electrical contacts.

9. An electrical connector device, comprising:

- a housing;
- a plurality of electrically conducting finger pairs mounted in the housing in electrical communication with a ground potential; and
- a plurality of electrically conducting members extending at least partially into the housing;

wherein each respective electrically conducting member extends between a finger pair;

wherein the fingers of each finger pair are spaced a first finite nonzero separation distance apart;

wherein one or both fingers of a finger pair may be plastically deformed towards the other finger to space the fingers a second separation distance apart; and

wherein the first separation distance is greater than the second separation distance.

10. The device of claim 9 wherein each finger pair includes a first elongated electrically conducting finger spaced from a second elongated electrically conducting finger.

11. The device of claim 9 wherein plastic deformation of one or both fingers towards the other finger to space the fingers a second separation distance apart places one or both fingers in electrical communication with the respective electrically conducting member extending therebetween.

12. An electrical connector apparatus, comprising:

a housing adapted to receive electrically conducting members;

a plurality of spaced electrically conducting members extending into the housing; and

a first plurality of elongated electrically conducting fingers mounted in the housing in electrical communication with one another and with a ground potential;

wherein the electrically conducting fingers are positioned such that each spaced electrically conducting member is substantially opposite a respective finger; and

wherein each respective finger positioned opposite an electrically conducting member may be selectively plastically deformed such that it electrically communicates with the respective oppositely positioned electrically conducting member.

13. The apparatus of claim 12 further comprising a second plurality of elongated electrically conducting fingers mounted in the housing in electrical communication with the ground potential, wherein each finger of the second plurality of elongated fingers is positioned substantially opposite a respective finger of the first plurality of elongated fingers, and wherein each electrically conducting member is positioned between two elongated fingers.

14. The apparatus of claim 12 wherein the electrically conducting members are adapted to be coupled to the surface of a printed circuit board.

15. An electrical connector device, comprising:
- a female connector assembly; and
  - a male connector assembly insertible into the female connector assembly;
- wherein the female connector assembly further comprises:
- a central slot;
  - a plurality of electrically conducting contact receptors sequentially positioned within the slot and extending beyond the female connector assembly;
  - at least one grounding slot; and
  - an electrically conducting ground plate having a plurality of bendable electrically conducting fingers formed therein;
- wherein the ground plate is electrically connected to a ground potential;
- wherein the male connector assembly further comprises:
- an elongated central portion adapted for insertion into the central slot;
  - a plurality of electrically conducting electrical contacts, each contact having a first elongated prong and a second elongated prong; and
  - at least one elongated grounding portion adapted for insertion into the grounding slot;

wherein the plurality of first elongated prongs are positioned to at least partially extend through the elongated central portion;

wherein each of the plurality of first elongated prongs is positioned to electrically communicate with a respective electrical contact receptor upon insertion of the elongated central portion into the central slot;

wherein the plurality of second elongated prongs are positioned to extend at least partially through the elongated grounding portion; and

wherein each second elongated prong is positioned substantially adjacent to and spaced from a respective bendable electrically conducting finger; and

wherein bending a respective bendable electrically conducting finger into contact with a respective second elongated prong actuates electric communication between the ground plate and a respective electrically conducting electrical contact, including the respective first elongated prong and anything in electrical communication therewith.

16. A method for producing an electrical connector, comprising the steps of:

- a) providing a ground plate having bendable electrically conducting fingers formed therein; and
- b) positioning at least one electrically conducting member adjacent at least one finger, wherein the at least one electrically conducting member is spaced from the respective at least one finger.

17. The method of claim 16 further comprising the steps of:

- c) selecting individual at least one electrically conducting members to be connected electrically connected to the ground plate; and
- d) bending the fingers adjacent the selected individual at least one electrically conducting members into electrical communication therewith.

18. The method of claim 17 wherein step d) is performed by an end user.

19. The method of claim 17 wherein step d) is performed by a manufacturer.